



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------------|------------------------|
| 10/550,337 | 09/22/2005 | Richard J. Caldwell | GB 030028 | 1260 |
| 24737 7590 12/28/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510 | | | EXAMINER AKBAR, MUHAMMAD A | |
| | | | ART UNIT 2618 | PAPER NUMBER |
| | | | MAIL DATE 12/28/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/550,337

Applicant(s)

CALDWELL ET AL.

Examiner

Muhammad Akbar

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-19 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-19 and 21-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendments filed 09/25/2007 have been entered. Claim(s) 1, 15 have been amended. Claims 6 and 20 have been cancelled.

Response to Arguments

2. Applicant's arguments filed 09/25/2007 have been fully considered but they are not persuasive.

Re claim 1, 15, In response to the applicants arguments on pages 8-9 that Shepherd fails to disclose " wherein the transmission of a first signal is timed to interfere with at least a portion of transmission made by a radio terminal." The examiner respectfully disagrees. In fig.1, Shepherd clearly shows Bluetooth enable laptop computer 1(i.e. first unit 3) and computer 2 (i.e. second unit 4) are exchanging packets data in a piconets environment (see page 6 lines 8-13 and fig. 2);

Shepherd further discloses the first unit (3) transmits (i.e. send) a special control packets (i.e. transmitted signal comprises data packet) that includes information relating to its clock data and channel hopping sequence for using transmission signal suspension for a timing period (see page 6 lines 1-30 and page 7 lines 1-14).

(i.e. if the address signal of the two devices are matching then second unit (4) issues a special address to signify the suspension (i.e. interfering) of the first unit (3) of transmission signal for period of time , see fig.3).

Art Unit: 2618

Examiner is concerned about the applicant's arguments on page 8 (lines 13-14) " signal in the sequence is timed such that its transmission interferes with any portion of any other signal in the sequence". However, examiner could not find such limitations in the claim and applicant disclosure, whereas applicant discloses in paragraph [0032] " Every Bluetooth.TM. terminal has an internal system clock which determines the timing and hopping of a transceiver in the terminal. For synchronization with other terminals forming the wireless network" ; and para[0042] " The master station then responds with another FHS packet to give the slave station the clock timing so that the final link hopping sequence can be used."

Since, Shepherd discloses the network wherein Bluetooth enable laptop computer (see fig. 1), channel hopping sequence (page 6 line7) and timing, frequency slots, data packets (page 6 line 14) is used; and per applicant disclosures "Every Bluetooth. TM. terminal has an internal system clock which determines the timing and hopping of a transceiver in the terminal", therefore Shepherd teaches claimed limitations as discussed above and rejections is maintained.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Art Unit: 2618

In this case, the teaching, suggestion, or motivation was found in the references themselves (however, Iliadis reference teaches same field of endeavor) and in the knowledge generally available to one of ordinary skill in the art. As stated in the last office Action, and repeated herein, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the protecting device from unwanted transmission signal wherein host terminal transmitting and receiving a signal for suspending the transmission message by the interference terminal (as taught by Shepherd) to incorporate the teaching of protecting device from interference signals (as taught by Iliadis) to improve security system by disabled of unwanted interference signals (see col.2 lines 59-67) in a communication system. Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2618

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-5,7-19 and 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepherd et al (WIPO Pub. No. WO 01/31960) and in view of Iliadis (US patent no. 6,968,157 B2).

Re claim 1, Shepherd discloses a method and apparatus for transmission restriction of portable radio device (see title) wherein protecting an apparatus from radio transmission signal in a predetermined radio frequency band (Bluetooth radio transceiver operates frequency band 2.4 GHz), comprising:

a portable computer (2) carries second Bluetooth unit 4 (see fig.1) i.e. a policing terminal (PT) which suppress radio frequency within a range;

Art Unit: 2618

detecting the presence of Bluetooth compatible radio transceiver in computer unit 3 [i.e. a radio terminal] operable to modify inquiry response (i.e. generate) message (i.e. interference signal) in the predetermined radio frequency band in accordance with a inquiry message [i.e. first predetermined signaling protocol];

and transmitting special message with designated device address to suspend transmission and inquiry signal (first signal) matched to a characteristic of the first predetermined signaling protocol, wherein, in response to receiving the first signal by the computer 1 (radio terminal) is suspended as a source of interference (see abstract, fig.1 and 2 and 3, steps 8-15 and page 6 lines 25-30 and page 7 lines 1-12).

Shepherd further teaches the matching of the inquiry signal (first signal) to a characteristic of the inquiry response signal (first predetermined signaling protocol) comprises timing period the transmission of the first signal to interfere with at least a portion of a transmission made by the computer 1 (i.e. radio terminal) in accordance with the modified inquiry response message (first predetermined signaling protocol) (see fig. 2 ,3 and page 7 lines 1-10) .

Shepherd further discloses the first unit (3) transmits (i.e. send) a special control packets (i.e. transmitted signal comprises data packet) that includes information relating to its clock data and channel hopping sequence for using transmission signal suspension for a timing period (see page 6 lines 1-30 and page 7 lines 1-14).

(i.e. if the address signal of the two devices are matching then second unit (4) issues a special address to signify the suspension (i.e. interfering) of the first unit (3) of transmission signal for period of time , see fig.3).

But Shepherd failed to disclose explicitly that device is protected from radio frequency interference signal. However, Iliadis teaches a system and method for protecting device from radio frequency interference (same field of endeavor) in a predetermined radio frequency band (see fig.1, Title and abstract) comprising: interference signal entrance detecting port (16 of ifg.1) i.e. a policing terminal (PT), upon detecting the presence of a radio interference signal by the sensing elements(30 and 32 of fig. 1) and operable to generate outputs signal as an interference(see col.6 lines 35-45);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the protecting device from unwanted transmission signal wherein host terminal transmitting and receiving a signal for suspending the transmission message by the interference terminal (as taught by Shepherd) to incorporate the teaching of protecting device from interference signals (as taught by Iliadis) to improve security system by disabled of unwanted interference signals in a communication system.

Re claim 2, as discussed above with respect to claim 1, Shepherd further teaches detecting the presence of the electronics device (computer unit 2 of fig. 1) i.e. radio terminal comprises detecting a second signal (at step S3) transmitted by the (first unit 3 of fig. 2) i.e. radio terminal in accordance with the first inquiry response i.e. first predetermined signaling protocol (see fig. 2,3 and page 2 lines 1-15).

Art Unit: 2618

Re claim 3, as discussed above with respect to claim 2, Shepherd furthermore teaches transmission of the page response at step S3 [i.e. second signal] is responsive to a third signal transmitted by the second unit 4 i.e. policing terminal (see fig.4 lines page 6 lines 1-12).

Re claim 4, as discussed above with respect to claim 1, Shepherd furthermore teaches the inquiry signal transmitted by the first unit 3 (fig. 2) i.e. first signal matched to a characteristic of the inquiry response message by the second unit 4 (see fig 2) i.e. first predetermined signaling protocol comprises a message with designated address to selected from the first predetermined signaling protocol (see fig.2,3, page 7 lines 1-10).

Re claim 5, as discussed above with respect to claim 4, Shepherd furthermore teaches the message is a command to suspend (i.e. disconnect) from a communication (see fig.3, page 7 lines 3-7).

Re claim 7, as discussed above with respect to claim 6, Shepherd furthermore teaches the portion is at least one of a control packet that includes information relating data i.e. preamble, synchronization word, device address field or header field (see page 6 lines1-9).

Re claim 8, as discussed above with respect to claim 4, Shepherd furthermore teaches the inquiry response signal i.e. first predetermined signaling protocol is a

Art Unit: 2618

networking protocol, the computer 2 Bluetooth enable terminal i.e. the policing terminal is equipped to operate in accordance with the inquiry and inquiry response signal i.e. first predetermined signaling protocol, and the computer 2 i.e. policing terminal joins a network comprising the computer 1 Bluetooth enable terminal i.e. radio terminal prior to transmitting the message (see fig. 1,2 and page 5 lines 20-28).

Re claim 9, as discussed above with respect to claim 8, Shepherd furthermore teaches the method can be used in several devices by establishing piconet networking system and the computer 2 Bluetooth enable terminal e.g. policing terminal becomes a master station in the piconet network prior to transmitting the message (see page 5 lines 1-6).

Re claim 10, as discussed above with respect to claim 2, Shepherd furthermore teaches detecting the presence of the computer 1 Bluetooth enable terminal i.e. radio terminal comprises detecting from the inquiry response message i.e. second signal that contain address of the computer 2 (see fig. 2 and page 5 lines 26-29).

Re claim 11, as discussed above with respect to claim 2, Shepherd furthermore teaches detecting the presence of the electronics device (computer unit 1) i.e. radio terminal comprises determining a frequency channel hopping sequence is used by the by the first computer unit 3 i.e. radio terminal (see fig.2 page 6 lines 5-8).

Re claim 12, as discussed above with respect to claim 6, Shepherd furthermore teaches the inquiry signal (first signal) convey the specified message (see page 5 lines 21-25); and Iliadis further teaches the detecting interference signal modulated with noise by the low noise amplifier (see fig.1 and col.5 line 49-53).

Re claim 13, as discussed above with respect to claim 1, Shepherd furthermore teaches the computer 2 Bluetooth enable terminal i.e. policing terminal is component of apparatus to be protected in a restricted area.(see fig. 1 and page 6 lines 25-30).

Re claim 14, as discussed above with respect to claim 1, Shepherd furthermore teaches the computer 1 Bluetooth enable terminal and mobile station MS7 (another apparatus) are equipped o operate in accordance with a second predetermined (Bluetooth enable 2.4GHz frequency band) signaling protocol(see fig. 1,5 and page 5 lines 1-6,page 10 lines 1-3).

Re claim 15, Shepherd discloses a computer unit 2 Bluetooth enable terminal (see fig.1) (i.e. a policing terminal) for transmission restriction from portable radio device (see title) wherein protecting an apparatus from radio transmission signal in a predetermined radio frequency band (Bluetooth radio transceiver operates frequency band 2.4 GHz), comprising:

detecting the presence of Bluetooth compatible radio transceiver in computer unit 3 [i.e. a radio terminal] operable to modify inquiry response (i.e. generate) message

i.e. interference signal in the predetermined radio frequency band in accordance with a inquiry message [i.e. first predetermined signaling protocol]; and transmitting special message with designated device address to suspend transmission and inquiry signal (first signal) matched to a characteristic of the first predetermined signaling protocol, wherein, in response to receiving the first signal by the computer 1 (radio terminal) is suspended as a source of interference (see abstract, fig.1 and 2 and 3, steps 8-15 and page 6 lines 25-30 and page 7 lines 1-12).

Shepherd further teaches the matching of the inquiry signal (first signal) to a characteristic of the inquiry response signal (first predetermined signaling protocol) comprises timing period the transmission of the first signal to interfere with at least a portion of a transmission made by the computer 1 (i.e. radio terminal) in accordance with the modified inquiry response message (first predetermined signaling protocol) (see fig. 2 ,3 and page 7 lines 1-10) .

Shepherd further discloses the first unit (3) transmits (i.e. send) a special control packets (i.e. transmitted signal comprises data packet) that includes information relating to its clock data and channel hopping sequence for using transmission signal suspension for a timing period (see page 6 lines 1-30 and page 7 lines 1-14).

(i.e. if the address signal of the two devices are matching then second unit (4) issues a special address to signify the suspension (i.e. interfering) of the first unit (3) of transmission signal for period of time , see fig.3).

But Shepherd failed to disclose explicitly that device is protected from radio frequency interference signal. However, Iliadis teaches a system and method for

Art Unit: 2618

protecting device from radio frequency interference (same field of endeavor) in a predetermined radio frequency band (see fig.1,Title and abstract) comprising: interference signal entrance detecting port (16 of ifg.1) i.e. a policing terminal (PT), upon detecting the presence of a radio interference signal by the sensing elements(30 and 32 of fig. 1) and operable to generate outputs signal as an interference(see col.6 lines 35-45);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the protecting device from unwanted transmission signal wherein host terminal transmitting and receiving a signal for suspending the transmission message by the interference terminal (as taught by Shepherd) to incorporate the teaching of protecting device from interference signals (as taught by Iliadis) to improve security system by disabled of unwanted interference signals in a communication system.

Re claim 16, as discussed above with respect to claim 15, Shepherd further teaches detecting the presence of the electronics device (computer unit 2 of fig. 1) i.e. radio terminal comprises detecting a second signal (at step S3) transmitted by the (first unit 3 of fig. 2) i.e. radio terminal in accordance with the first inquiry response i.e. first predetermined signaling protocol (see fig. 2,3 and page 2 lines 1-15).

Re claim 17, as discussed above with respect to claim 16, Shepherd furthermore teaches transmission of the page response at step S3 [i.e. second signal] is responsive

Art Unit: 2618

to a third signal transmitted by the second unit 4 i.e. policing terminal (see fig.4 lines page 6 lines 1-12).

Re claim 18, as discussed above with respect to claim 15, Shepherd furthermore teaches the inquiry signal transmitted by the first unit 3 (fig. 2) i.e. first signal matched to a characteristic of the inquiry response message by the second unit 4 (see fig 2) i.e. first predetermined signaling protocol comprises a message with designated address to selected from the first predetermined signaling protocol (see fig.2,3, page 7 lines 1-10).

Re claim 19, as discussed above with respect to claim 18, Shepherd furthermore teaches the message is a command to suspend (i.e. disconnect) from a communication (see fig.3, page 7 lines 3-7).

Re claim 21, as discussed above with respect to claim 20, Shepherd furthermore teaches the portion is at least one of a control packet that includes information relating data i.e. preamble, synchronization word, device address field or header field (see page 6 lines1-9).

Re claim 22, as discussed above with respect to claim 18, Shepherd furthermore teaches the inquiry response signal i.e. first predetermined signaling protocol is a networking protocol, the computer 2 Bluetooth enable terminal i.e. the policing terminal is equipped to operate in accordance with the inquiry and inquiry response signal i.e.

Art Unit: 2618

first predetermined signaling protocol, and the computer 2 i.e. policing terminal joins a network comprising the computer 1 Bluetooth enable terminal i.e. radio terminal prior to transmitting the message (see fig. 1,2 and page 5 lines 20-28).

Re claim 23, as discussed above with respect to claim 22, Shepherd furthermore teaches the method can be used in several devices by establishing piconet networking system and the computer 2 Bluetooth enable terminal e.g. policing terminal becomes a master station in the piconet network prior to transmitting the message (see page 5 lines 1-6).

Re claim 24, as discussed above with respect to claim 16, Shepherd furthermore teaches detecting the presence of the computer 1 Bluetooth enable terminal i.e. radio terminal comprises detecting from the inquiry response message i.e. second signal that contain address of the computer 2 (see fig. 2 and page 5 lines 26-29).

Re claim 25, as discussed above with respect to claim 16, Shepherd furthermore teaches detecting the presence of the electronics device (computer unit 1) i.e. radio terminal comprises determining a frequency channel hopping sequence is used by the by the first computer unit 3 i.e. radio terminal (see fig.2 page 6 lines 5-8).

Re claim 26, as discussed above with respect to claim 20, Shepherd furthermore teaches the inquiry signal (first signal) convey the specified message (see page 5 lines

Art Unit: 2618

21-25); and Iliadis further teaches the detecting interference signal modulated with noise by the low noise amplifier (see fig.1 and col.5 line 49-53).

Re claim 27, as discussed above with respect to claim 15, Shepherd furthermore teaches the computer 2 Bluetooth enable terminal i.e. policing terminal is component of apparatus to be protected in a restricted area.(see fig. 1 and page 6 lines 25-30).

Re claim 28, as discussed above with respect to claim 15, Shepherd furthermore teaches the computer 1 Bluetooth enable terminal and mobile station MS7 (another apparatus) are equipped o operate in accordance with a second predetermined (Bluetooth enable 2.4GHz frequency band) signaling protocol(see fig. 1,5 and page 5 lines 1-6,page 10 lines 1-3).

Conclusion

7. The amendment necessitated the new ground(s) of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and

Art Unit: 2618


any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muhammad Akbar whose telephone number is (571)-270-1218. The examiner can normally be reached on Monday- Thursday (8:00 A.M.- 5:00P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lana Le can be reached on 571-272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MA


12-26-07
LANA LE
PRIMARY EXAMINER